

Claims

1. A viewing device for viewing a video display on a display screen which display includes the sequential display of right and left video images, said viewing device including first and second, spaced, viewing structures, such that a first viewing structure is positioned in front of the viewer's left eye and a second viewing structure is positioned in front of the viewer's right eye with the viewer being required to look through the structures to view the video display, each structure provided to be operable to change between a viewing condition and a masking condition and characterised in that a feature of a predefined format is displayed in the sequence of video images which can be detected to allow synchronisation of the operation of the viewing structures and the display of the images on the display screen.
2. A viewing device according to claim 1, characterised in that the feature is subliminal.
3. A viewing device according to claim 1, characterised in that each viewing structure construction is a screen which is configurable between substantially opaque and transparent conditions.
4. A viewing device according to claim 1, characterised in that the viewing device or associated components may be powered by any or any combination of batteries, mains power, and/or the like.
5. A viewing device according to claim 1, characterised in that the viewing device is capable of being worn.

6. A viewing device according to claim 1, characterised in that the feature is a substantially black image with a predefined marking element, and/or an overlying reference element.
7. A viewing device according to claim 6, characterised in that the reference element is located in a corner of the image.
8. A viewing device according to claim 6, characterised in that the reference element is any combination of colours and/or shapes to distinguish between left and white images.
9. A viewing device according to claim 6, characterised in that the image of predefined format replaces the right or left hand image of a video stereo pair.
10. A viewing device according to claim 1, characterised in that the feature is generated at adjustable time intervals.
11. A viewing device according to claim 1, characterised in that at least one viewing structure is provided with an optical sensor to detect the display of the feature.
12. A viewing device according to claim 11, characterised in that the optical sensor is a photodiode.
13. A viewing device according to claim 11, characterised in that the optical sensor is detachably mounted to the viewing device by any or any combination of reusable adhesive, clamps, grips, clips, screws, hook and loop fastenings, and/or the like.

14. A viewing device according to claim 11, characterised in that the optical sensor is provided with a housing which is configured to ensure that the optical sensor is automatically positioned so as to directly face the display screen.
15. A viewing device according to claim 11, characterised in that the optical sensor includes focusing means to focus or direct the light generated by the display screen onto the optical sensor and/or reduce the field of view of the optical sensor to eliminate or reduce the possibility of adverse light effects provided by any other light sources.
16. A viewing device according to claim 11, characterised in that the optical sensor scans a greater area than the area defined by the feature.
17. A viewing device according to claim 11, characterised in that the optical sensor includes control means, producing a control signal in response to detection of the feature, to control the viewing structures.
18. A viewing device according to claim 11, characterised in that the viewing device includes communication means for allowing communication between the optical device and other components of the viewing device.
19. A viewing device according to claim 18, characterised in that the communication means includes any or any combination of wires, optical means, radio frequencies, infra-red, and/or the like.
20. A viewing device according to claim 17, characterised in that the control signal is used to identify a right or left

image to allow synchronisation of the viewing structures to the images.

21. A viewing device according to claim 17, characterised in that the control signal is used to determine the display rate of each successive video image and control the activation timing and frequency of the viewing structures.
22. A viewing device according to claim 17, characterised in that the control means act in a predictive and self-correcting manner to determine the activation timing and frequency of the viewing structures.
23. A viewing device according to claim 17, characterised in that the control means include adjustment means to allow fine manual and/or automatic adjustment of the same.
24. A viewing device according to claim 23, characterised in that the adjustment means are in the form of one or more wheels for rotation by a user.
25. A viewing device for viewing a sequential display of right and left video images to generate a three dimensional effect, said viewing device including first and second, spaced, viewing structures such that, in use, a first viewing structure is positioned in front of the viewer's left eye and a second viewing structure is positioned in front of the viewer's right eye with the viewer being required to look through the structures to view the video display, each structure provided with an LCD screen and control means to change the LCD screen between substantially transparent and substantially opaque conditions and wherein at least one feature of a predefined format is displayed and is of a form which can be detected by a

sensor and allows synchronisation of the viewing device operation with the display of the images on the display screen.

26. A method for viewing a series of left and right video images to create to the user a three-dimensional effect, said method comprising the steps of;

generating a sequence of left and right video images on a display screen;

placing a viewing device between the user's eyes and the display screen, said device including viewing structures for the user's left and right eye respectively;

operating each of the viewing structures to move between open and masked conditions to allow selective viewing of the video images in sequence with the display of the same; and

wherein the video images include at least one feature of a predefined format which can be detected by a sensor and, when detected, the same is used to check and, if required, alter the synchronicity between the operation of the viewing structures and the display of the video images.